

WHAT IS CLAIMED IS:

1. A computer system, comprising:

a host operable to interface with a network;

a primary storage device operable to interface with

5 the network, the primary storage device including first
and second logical units, the first logical unit assigned
to store data generated by the host; and

an agent module operable to communicate with the

host and the primary storage device, the agent module

10 further operable to:

detect a failure at the first logical unit;

locate backup data from the first logical unit

on a backup storage device;

transfer the backup data from the backup

15 storage device to the second logical unit; and

map the second logical unit to an address

associated with the host in response to detecting the

failure at the first logical unit.

20 2. The computer system of Claim 1, wherein the
primary storage device comprises a redundant array of
independent disks (RAID) device.

25 3. The computer system of Claim 1, wherein the
detecting comprises receiving notification from the
primary storage device of the failure at the first
logical unit.

30 4. The computer system of Claim 1, wherein the
address comprises a world wide name (WWN).

5. The computer system of Claim 1, wherein the backup storage device comprises a tape drive.

5 6. The computer system of Claim 1, further comprising the agent module operable to configure the second logical unit in response to detecting the failure.

10 7. The computer system of Claim 1, further comprising the agent module operable to instruct the host to reboot after the second logical unit has been mapped to the host.

15 8. The computer system of Claim 1, wherein the network comprises a fibre channel network.

9. A computer system for providing automatic data restoration after a storage device failure, comprising:

a plurality of servers operable to interface with a network, the servers including an application server and
5 a backup server;

a plurality of storage devices operable to store data associated with the servers, the storage devices including an application storage device including first and second logical units and a backup storage device

10 interfaced with the backup server, the first logical unit assigned to the application server by using a first logical unit number (LUN) address; and

an agent module associated with the servers and the storage devices, the agent module operable to:

15 detect a failure at the first logical unit;
assign the second logical unit to the backup server in response to detecting the failure;

instruct the backup server to transfer backup data associated with the first logical unit from the
20 backup storage device to the second logical unit;

map the second logical unit to the application server when the backup data transfer from the backup storage device is complete by using a second LUN address associated with the second logical unit and a server address associated with the application server; and

25 instruct the application server to reboot after the second logical unit has been mapped to the application server.

10. The computer system of Claim 9, wherein the application storage device comprises a RAID device.

11. The computer system of Claim 9, wherein the 5 backup storage device comprises a tape drive.

12. The computer system of Claim 9, further comprising the agent module operable to configure the second logical unit in response to detecting the failure 10 at the first logical unit.

13. The computer system of Claim 9, wherein the network comprises a fibre channel network.

14. A method for providing automatic data restoration after a storage device failure, comprising:

detecting a failure at a first logical unit operable to store data associated with a host, the host operable 5 to couple to a network;

configuring a second logical unit in response to detecting the failure at the first logical unit, the first and second logical units located on a first storage device operable to couple to the network;

10 transferring backup data associated with the first logical unit from a second storage device to the second logical unit; and

mapping the second logical unit to an address associated with the host when the backup data transfer 15 from the second storage device is complete.

15. The method of Claim 14, further comprising:
communicating the data between the host and the first logical unit via the network; and

20 communicating the backup data between the first logical unit and the second storage device via the network.

16. The method of Claim 14, further comprising
25 locating the backup data associated with the first logical unit on the second storage device, the backup data copied from the first logical unit to the second storage device prior to the failure.

17. The method of Claim 14, wherein:
the first device comprises a RAID device; and
configuring the second logical unit in response to
detecting the failure at the first logical unit comprises
5 instructing the RAID device to create the second logical
unit from one or more spare storage media.

18. The method of Claim 14, wherein the second
storage device comprises a tape drive.

10 19. The method of Claim 14, further comprising
instructing the host to reboot after mapping the second
logical unit to the host.

15 20. The method of Claim 14, wherein the
transferring comprises instructing a backup server
interfaced with the second storage device to copy the
data from the second storage device to the second logical
unit.

20 21. The method of Claim 14, wherein the detecting
comprises receiving an SNMP message.

25 22. The method of Claim 14, further comprising
communicating the data via a fibre channel network.